UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,875	04/30/2001	Kazumi Tabuchi	1152-0275P	1199

2292 7590 03/26/2007	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747	**EXAMINER** PHAM, THIERRY L

ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/26/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/843,875	TABUCHI, KAZUMI
	Examiner	Art Unit	
	Thierry L. Pham	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 February 2007</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

● This action is responsive to the following communication: RCE filed on 2/27/07.

● Claims 1-18 are pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/27/07 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hori (U.S. 5847726), and in view of Ogawa (JP 2000076035A, translation provided).

Regarding claim 1, Hori discloses an ink-jet printer system *(inkjet printing system, fig.63)* comprising:

● an ink-jet printer *(printer 101, fig. 6)* is provided with storage means *(RAM 124 for storing various numerical values, fig. 6, col. 6, lines 5-25 and col. 9, lines 1-10)* which updates last printing operation *(last/preceding printing operation timing, col. 4, lines 12-18 and col. 9, lines 1-10)* conducted based on a print request and print data issued by a host computer *(print request and print data are issued from a host computer, abstract, fig. 3 & fig. 7)*;

● wherein, each host machine *(PC 130, fig. 6)* includes print control means *(CPU 31, fig. 6)* for reading out the completion time instant *(preceding/completion time, col. 9, lines 1-30 and col.*

13, lines 28-60) from the *host memory 34B* at the start of a printing operation *(printing operation from PC 130, fig. 7, col. 9, lines 1-40 and col. 13, lines 28-60)*, obtaining an inactive time *(elapse time, fig. 7, col.9, lines 59-65 and col. 13, lines 28-60)* by comparing the read out completion time instant with the current time *(comparing last operation time with current time, fig. 7, col. 9, lines 59-65 and col. 13, lines 28-60)*, and selectively issuing an execution order of recovery treatment *(i.e. purging operation, fig. 7)* to the ink-jet printer by comparing the obtained inactive time with a predetermined reference time period *(comparing elapse time with predetermined period/time, fig. 7, col. 9, lines 65 to col. 10, lines 5 and col. 13, lines 28-60)*.

Hori teaches a completion time instant of last printing operation is stored in RAM 34B of host computer 3, but fails to teach and/or suggest storing a completion time instant of a last printing operation in an ink-jet printer, and fails to teach and/or suggest an ink-jet printer is shared by multiple number of host machines/computers. In other words, Hori teaches a completion time instant of last printing operation is stored in RAM 34B of host computer 3 rather than in RAM 24 of printer 1.

Ogawa, in the same field of endeavor for ink-jet printing system, teaches a well-known example of storing completion time instant of a last print operation in an ink-jet printer (storing completion time instant of last printing operation in RAM 10 of printer 1, abstract, pars. 5, 15, 20-22) and wherein an ink-jet printer shared by multiple number of host machines/computers (sharing a printer with multiple host computers are well known and widely used in the art, for example, via LAN, WAN, and Internet network).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the inkjet printer of Mori to store completion time instant of last printing operation and to share with multiple host computers (a) to allow an inkjet printer to be shared with multiple of users, therefore, reducing hardware costs; (b) to improve versatility; (c) eliminate expensive real-time clock (par. 4 of Ogawa).

Therefore, it would have been obvious to combine Mori with Ogawa to obtain the invention as specified in claim 1.

Regarding claim 2, Hori further teaches the ink-jet printer according to claim 1, wherein the print control means (host computer, fig. 3) includes time measuring means (real time clock

35, fig. 3) for measuring the current time and transfers the current time measured by the time

measuring means at the end of a printing operation to the ink-jet printer as the completion time

instant of the printing operation (current time and last printed completion time, col. 6, lines 15-

40).

Regarding claims 3-4, Hori further teaches the ink-jet printer according to claim 1,

wherein the print control means determines whether or not the completion time instant of the last

printing operation read out from the ink-jet printer is valid (determine whether the last printed

operation time was accurately recorded, col. 10, lines 40-67+) and gives an execution order of a

recovery treatment (i.e. purging/flushing operations/tasks based upon the comparison results, fig.

7, cols. 9-10) if the completion time instant is invalid (invalid time, fig. 8, col. 11, lines 28-47).

Regarding claims 5-7, Hori further teaches the ink-jet printer according to claim 1,

wherein if the completion time instant which was read from the ink-jet printer at the end of the

last printing operation indicates a later time than the current time (last printed operation time is

later than the current time read from the host computer, col. 10, lines 40-67+), the print control

means issues to the ink-jet printer a command of prohibiting (update is not necessary due to

inaccuracy of time recorded, cols. 10-11) the update of the completion time instant held in the

storage means.

Regarding claims 8-16, Hori further teaches the ink-jet printer according to claim 1,

wherein if the completion time instant which was read from the ink-jet printer at the end of the

last printing operation indicates a later time than the current time, the print control means

informs that fact to other host machines and provides warning (informs users to update host

computer's time to reflect the correct current time, col. 10, lines 40-67+).

Regarding claim 17, Hori further teaches the ink-jet printer according to claim 2, further

comprising: a clock server (host computer includes a real time clock, fig. 6) for indicating the

current time, wherein the print control means reads the current time from the clock server at

regular intervals and updates the current time measured by the time measuring means based on the read current time.

Regarding claim 18, Hori further teaches the ink-jet printer according to claim 1, further comprising: a clock server (host computer includes a real time clock, fig. 6) for indicating the current time, wherein the storage means updates and stores the current time indicated by the clock server at the printing operation end as the completion time instant of the last printing operation (current and last printed completion time, fig. 4).

Response to Arguments

Applicant's arguments, see pages 7-10, filed 2/27/07 with respect to the rejection(s) of claim(s) 1 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art reference.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- US 6388758 to Kawanabe et al, teaches a well-known example of conducting treatment recovery (e.g. print head cleaning) based upon inactive time (elapse time period).
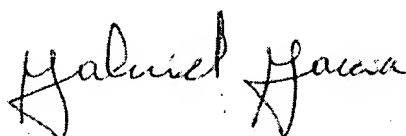
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thierry L. Pham

GABRIEL I. GARCIA
PRIMARY EXAMINER